

Amendments to the Claims

Claims 1-108 (Canceled).

Claim 109 (Currently amended). A glycoengineered, recombinant antibody comprising an immunoglobulin G (IgG) Fc region containing N-linked oligosaccharides, wherein said antibody is isolated from a mammalian host cell and has been engineered to have an increased proportion of nonfucosylated oligosaccharides in the Fc region compared to the corresponding antibody produced by the same host cell that has not been glycoengineered, and wherein said antibody has increased Fc-mediated cellular cytotoxicity as a result of said increased proportion of nonfucosylated oligosaccharides.

Claim 110 (Currently Amended). A glycoengineered, recombinant antibody comprising an IgG Fc region containing N-linked oligosaccharides, wherein said antibody is isolated from a mammalian host cell and has been engineered to have an increased proportion of nonfucosylated oligosaccharides in the Fc region compared to the corresponding antibody produced by the same host cell that has not been glycoengineered, and wherein said antibody has increased Fc receptor binding affinity as a result of said increased proportion of nonfucosylated oligosaccharides.

Claim 111 (Previously presented). A glycoengineered, recombinant antibody according to claim 109 or claim 110, wherein the predominant N-linked oligosaccharide in the Fc region is nonfucosylated.

Claim 112 (Previously presented). A glycoengineered, recombinant antibody according to claim 109 or claim 110, wherein said antibody is a chimeric antibody.

Claim 113 (Previously presented). A glycoengineered, recombinant antibody according to claim 109 or claim 110, wherein said antibody is a humanized antibody.

Claim 114 (Previously presented). A glycoengineered, recombinant antibody according to claim 109 or claim 110, wherein said antibody is an antibody fragment that contains a Fc region.

Claim 115 (Previously presented). A glycoengineered, recombinant antibody according to claim 109 or claim 110, wherein said antibody is a fusion protein that includes a Fc region of an immunoglobulin.

Claim 116 (Previously presented). A glycoengineered, recombinant antibody according to claim 109 or claim 110, wherein the predominant N-linked oligosaccharide in the Fc region is not a high-mannose structure.

Claim 117 (Previously presented). A glycoengineered, recombinant antibody according to claim 109 or claim 110, wherein said Fc region containing N-linked oligosaccharides further comprises an increased proportion of GlcNAc residues compared to the corresponding antibody produced by the same host cell that has not been glycoengineered.

Claim 118 (Currently Amended). A glycoengineered, recombinant antibody comprising an IgG Fc region containing N-linked oligosaccharides, wherein said antibody is isolated from a mammalian host cell and has been engineered to have an increased proportion of GlcNAc residues in the Fc region relative to the proportion of fucose residues compared to the corresponding antibody produced by the same host cell that has not been glycoengineered, and wherein said antibody has increased Fc-mediated cellular cytotoxicity as a result of said glycoengineering.

Claim 119 (Previously presented). A glycoengineered recombinant antibody according to claim 118, wherein said GlcNAc residues are bisecting.

Claim 120 (Previously presented). A glycoengineered, recombinant antibody according to claim 118, wherein said GlcNAc residues are bisecting and wherein said bisected oligosaccharides are of complex type.

Claim 121 (Previously presented). A glycoengineered, recombinant antibody according to claim 118, wherein said GlcNAc residues are bisecting and wherein said bisected oligosaccharides are of hybrid type.

Claim 122 (Currently amended). A glycoengineered, recombinant antibody according to claim 109 or claim 110, wherein said antibody is isolated from an engineered mammalian host cell selected from the group consisting of an engineered CHO cell, an engineered BHK cell, an engineered NS0 cell, and an engineered SP2/0 cell, ~~an engineered yeast cell, and an engineered plant cell.~~

Claim 123 (Previously presented). A glycoengineered, recombinant antibody according to claim 122, wherein said antibody is isolated from an engineered CHO cell.

Claim 124 (Currently amended). A glycoengineered, recombinant antibody according to claim 109 or claim 110, wherein said antibody is produced by a mammalian host cell that has been genetically manipulated to have altered activity of at least one glycoprotein-modifying glycosyl transferase.

Claim 125 (Previously presented). A glycoengineered, recombinant antibody according to claim 109 or claim 110, wherein said antibody is a therapeutic antibody.

Claim 126 (Previously presented). A glycoengineered, recombinant antibody according to claim 109 or claim 110, wherein said antibody selectively binds to an antigen expressed by cancer cells.

Claim 127 (Previously presented). A glycoengineered, recombinant antibody according to claim 125, wherein said antibody is a monoclonal antibody.

Claim 128 (Previously presented). A glycoengineered recombinant antibody according to claim 125, wherein said antibody is a selected from the group consisting of: an anti-CD20 antibody, an anti-human neuroblastoma antibody, an anti-human renal cell carcinoma antibody, an anti-HER2 antibody, an anti-human colon, lung, and breast carcinoma antibody, an anti-human 17-1A antigen antibody, a humanized anti-human colorectal tumor antibody, an anti-human melanoma antibody, and an anti-human squamous-cell carcinoma antibody.

Claim 129 (Canceled).

Claim 130 (Previously presented). A glycoengineered, recombinant antibody according to claim 109 or claim 110, wherein the majority of the N-linked oligosaccharides in the Fc region of said antibody are bisected.

Claim 131 (Previously presented). A glycoengineered, recombinant antibody according to claim 109 or claim 110, wherein the majority of the N-linked oligosaccharides in the Fc region of said antibody are nonfucosylated.

Claim 132 (Previously presented). A glycoengineered, recombinant antibody according to claim 109 or claim 110, wherein the majority of the N-linked oligosaccharides in said Fc region of said antibody are bisected, nonfucosylated.

Claim 133 (Currently Amended). A glycoengineered, recombinant antibody according to claim 109 or claim 110, wherein said antibody is produced by a process comprising:

- (a) providing a mammalian host cell comprising at least one nucleic acid encoding a recombinant antibody;
- (b) genetically manipulating said host cell to alter the activity in said host cell of at least one glycoprotein-modifying glycosyltransferase;

- (c) culturing said host cell under conditions which permit expression of the glycoengineered, recombinant antibody; and
- (d) isolating said glycoengineered, recombinant antibody.

Claim 134 (Previously presented). A glycoengineered, recombinant antibody according to claim 124, wherein said antibody is a therapeutic monoclonal antibody having a human Fc region and that selectively binds an antigen expressed by cancer cells, and wherein the majority of oligosaccharides in the Fc region of said antibody are nonfucosylated.

Claim 135 (Previously presented). A glycoengineered, recombinant antibody according to claim 124, wherein said altered activity comprises altered expression of at least one glycoprotein-modifying glycosyl transferase.

Claim 136 (Previously presented). A glycoengineered, recombinant antibody according to claim 133, wherein said altered activity comprises altered expression of at least one glycoprotein-modifying glycosyl transferase.

Claim 137 (Currently Amended). A glycoengineered, recombinant antibody according to claim 134, wherein ~~at least 45%~~ up to about 50% of the oligosaccharides in the Fc region are complex structures.

Claim 138 (Currently Amended). A glycoengineered, recombinant antibody according to claim 134, wherein said glycoengineered, recombinant antibody exhibits at least up to about an 80% increase in maximal ADCC activity compared to the same antibody produced by the same host cell under identical culture and purification conditions, but which has not been glycoengineered.

Claim 139 (Previously presented). A glycoengineered, recombinant antibody according to claim 124, wherein said at least one glycoprotein-modifying glycosyl transferase is GnTIII or ManII.

Claim 140 (New). A glycoengineered, recombinant antibody according to claim 109 or claim 110, wherein said IgG Fc region containing N-linked oligosaccharides comprises an entire IgG Fc region.

Claim 141 (New). A glycoengineered, recombinant antibody according to claim 109 or claim 110, wherein said IgG Fc region containing N-linked oligosaccharides comprises an IgG fragment.

Claim 142 (New). A glycoengineered, recombinant antibody according to claim 141, wherein said IgG fragment comprises a CH2 domain.